

Please enter the following claims.

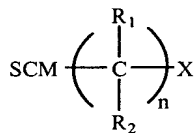
51. (New) A method of detecting at least one hybridization complex comprising a target nucleic acid, said method comprising:
- a) adding a target nucleic acid to an array to form at least a first hybridization complex, said array comprising a solid support having a plurality of regions, each region comprising an electrode and a self-assembled mixed monolayer comprising
- i) blocking moieties, having a first end attached to said electrode, wherein said blocking moieties shield nucleic acids from said electrode; and
- ii) at least one modified nucleic acid comprising a nucleic acid and a linker moiety having a first and second end; wherein said first end of said linker is attached to said electrode and said second end is attached to said nucleic acid; wherein at least two different regions comprise different probe nucleic acids;
- b) adding an agent that distinguishes between single and double stranded nucleic acids; and
- c) detecting the presence of said first hybridization complex.

52. (New) A method according to claim 51, wherein said first end of said blocking moieties is attached to said electrode via a sulfur linkage.

53. (New) A method according to claim 52, wherein said first end of said linker is attached to said electrode via a sulfur linkage.

54. (New) A method according to claim 51, 52, or 53, wherein said electrode comprises gold.

55. (New) A method according to claim 51, wherein said blocking moieties have the formula:



wherein

SCM is a sulfur-containing moiety, wherein said sulfur containing moiety is attached to said electrode;

$R_1$  and  $R_2$  are independently selected from the group consisting of hydrogen and substituent groups;  
 $n$  is an integer from 3 to 50; and  
 $X$  is a terminal group.

~~58~~ (New) A method according to claim <sup>55</sup>~~58~~, wherein  $R_1$  and  $R_2$  are hydrogen.

~~59~~ (New) A method according to claim <sup>56</sup>~~59~~, wherein said blocking moieties comprise alkyl.

~~58~~ (New) A method according to claim <sup>55 56 57</sup>~~58, 59, or 60~~, wherein  $n$  is  $\geq 6$ .

~~61~~ (New) A method according to claim <sup>51</sup>~~61~~, wherein said blocking moiety is a branched molecule.

~~60~~ (New) A method according to claim <sup>59</sup>~~62~~, wherein said blocking moiety is a straight chain alkyl group.

~~64~~ (New) A method according to claim <sup>60</sup>~~63~~, wherein said alkyl ranges from 1 to 20 carbon atoms.

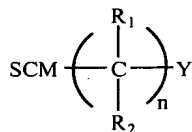
~~62~~ (New) An method according to claim <sup>51</sup>~~64~~, wherein said array comprises a plurality of different blocking moieties.]

<sup>63</sup> ~~66~~ (New) A method according to claim <sup>62</sup>~~65~~, wherein at least one of said blocking moieties is a branched molecule.

<sup>64</sup> ~~67~~ (New) A method according to claim <sup>62 63</sup>~~65 or 66~~, wherein at least one of said blocking moieties is an alkyl group.

~~65~~ (New) An method according to claim <sup>55</sup>~~58~~, wherein for said blocking moiety,--  
SCM is a thiol containing moiety;  
 $R_1$  and  $R_2$  are hydrogen;  
 $n$  is 16; and  
 $X$  is hydroxyl.

66 (New) A method according to claim 54, wherein said linker moiety has the formula:



wherein

SCM is a sulfur-containing moiety, wherein said sulfur containing moiety is attached to said electrode;

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of hydrogen and substituent groups;

n is an integer from 3 to 50; and

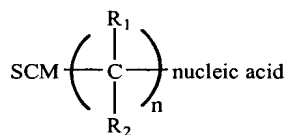
Y is the point of attachment for a nucleic acid.

67 (New) An method according to claim 66, wherein said linker moiety is a straight chain alkyl group.

68 (New) An method according to claim 67, wherein said alkyl group ranges from 1 to 20 carbon atoms.

69 (New) A method according to claim 66, wherein for said linker moiety,  
SCM is a thiol containing moiety;  
R<sub>1</sub> and R<sub>2</sub> are hydrogen;  
n is 16; and  
Y is oxygen.

70 (New) A method according to claim 54, wherein said modified nucleic acids have the formula:



wherein

SCM is a sulfur-containing moiety, wherein said sulfur containing moiety is attached to said electrode;

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of hydrogen

and substituent groups; and  
n is an integer from 3 to 50.

71. (New) A method according to claim 70, wherein  $R_1$  and  $R_2$  are hydrogen.

72. (New) A method according to claim ~~66~~, 70, or 71, wherein  $n \geq 6$ .

73. (New) A method according to claim 70, wherein for said linker moiety,  
SCM is a thiol containing moiety;  
 $R_1$  and  $R_2$  are hydrogen;  
n is 16; and  
Y is oxygen.

74. (New) A method according to claim 54, wherein said blocking moiety comprises a phosphorus-containing moiety.

75. (New) A method according to claim 54, wherein said nucleic acid is attached to said linker at a 2' position of a ribose.

76. (New) A method according to claim 54, wherein said nucleic acid is attached to said linker at a 3' position of a ribose.

77. (New) A method according to claim 54, wherein said nucleic acid is attached to said linker at a base of said nucleic acid.

78. (New) A method according to claim 54, wherein said nucleic acid is attached to said linker at a phosphate linkage of said nucleic acid.

79. (New) A method according to claim 54, wherein said agent is an intercalating agent.

#### REMARKS

Claims 15-50 have been cancelled by amendment. Claims 51-82 have been added. Support is found throughout the specification, for example on page 25, lines 20-25. No new matter is entered by way of these added claims, and therefore entry of the claims into the instant application is respectfully requested.